

Listing of Claims

1. (original) A communications terminal apparatus, comprising:
a communications system configured to perform electronic communications with a manager supervising said apparatus;
a detector detecting a status of usage of a consumable product used in said apparatus and supplied by a service depot;
a register registering electronic communications addresses of said manager and said service depot, identification of said apparatus, specification of said consumable product, and identification of said service depot; and
a controller configured to send a request for supplying said consumable product to said manager using said electronic communications address when said detector detects that said consumable product is nearly ended and a report for reporting a completion of supplying said consumable product on said apparatus when said detector detects that said consumable product is refilled, said request including said identification of said apparatus, said specification of said consumable product, and said identification of said service depot.

2. (original) A communications terminal apparatus as defined in Claim 1, wherein said communications system performs E-mail communications with said manager.

3. (original) A communications terminal apparatus as defined in Claim 1, wherein said consumable product includes toner.

4. (original) A communications terminal apparatus as defined in Claim 1, wherein

said communications system performs facsimile communications with said manager.

5. (original) A communications terminal apparatus, comprising:
 - a communications system configured to perform electronic communications with a manager supervising said apparatus and a service depot providing a repair service to said apparatus;
 - a detector detecting an event indicative of a defect in a maintenance component used in said apparatus;
 - a register registering electronic communications addresses of said manager and said service depot, identification of said apparatus, and information of said event, and identification of said service depot; and
 - a controller configured to send a request for said repair service to said manager and said service depot using the respectively registered electronic communications addresses when said detector detects said event and a report for reporting a completion of said repair service on said apparatus when said detector detects no defect of said maintenance component, said request including said identification of said apparatus, said specification of said maintenance component, and said identification of said service depot.
6. (original) A communications terminal apparatus as defined in Claim 5, wherein said communications system performs E-mail communications with said manager and said service depot.
7. (original) A communications terminal apparatus as defined in Claim 5, wherein

said maintenance component includes a photoconductor.

8. (original) A communications terminal apparatus as defined in Claim 5, wherein said communications system performs facsimile communications with said manager and said service depot.

9. (original) An image forming apparatus, comprising:
a communications system configured to perform electronic communications with a manager supervising said apparatus;
a detector detecting a status of usage of a consumable product used in said apparatus and supplied by a service depot;
a register registering electronic communications addresses of said manager and said service depot, identification of said apparatus, specification of said consumable product, and identification of said service depot; and
a controller configured to send a request for supplying said consumable product to said manager using said electronic communications address when said detector detects that said consumable product is nearly ended and a report for reporting a completion of supplying said consumable product on said apparatus when said detector detects that said consumable product is refilled, said request including said identification of said apparatus, said specification of said consumable, and said identification of said service depot.

10. (original) An image forming apparatus as defined in Claim 9, wherein said communications system performs E-mail communications with said manager.

11. (original) A communications terminal apparatus as defined in Claim 9, wherein said consumable product includes toner.

12. (original) An image forming apparatus, comprising:
a communications system configured to perform electronic communications with a manager supervising said apparatus and a service depot providing a repair service to said apparatus;

a detector detecting an event indicative of a defect in a maintenance component used in said apparatus is defective;

a register registering electronic communications addresses of said manager and said service depot, identification of said apparatus, and information of said event, and identification of said service depot; and

a controller configured to send a request for said repair service to said manager and said service depot using the respectively registered electronic communications addresses when said detector detects said event and a report for reporting a completion of said repair service on said apparatus when said detector detects no defect of said maintenance component, said request including said identification of said apparatus, said information of said event, and said identification of said service depot.

13. (original) An image forming apparatus as defined in Claim 12, wherein said communications system performs E-mail communications with said data terminal and said service depot.

14. (original) An image forming apparatus as defined in Claim 12, wherein said maintenance component includes a photoconductor.

15. (original) A communications terminal apparatus, comprising:
a communications system configured to perform E-mail communications and facsimile communications with a manager supervising said apparatus;
a consumable product status detector configured to detect a status of said consumable product used in said apparatus and supplied by a service depot;
a manager registration system configured to register an E-mail address and a telephone number of said manager;
a service depot registration system configured to register an E-mail address and a telephone number of said service depot;
a terminal identification information registration system configured to register terminal identification information of said apparatus;
a consumable product information registration system configured to register identification of a supplier of said consumable product and specification of said consumable product; and
a mail controlling system configured to send a first E-mail requesting a delivery of said consumable product to said manager registered in said manager registration system when said consumable product is determined to be in a short supply status based on detect information detected by said consumable product status detector and a second E-mail reporting a completion of supplying said consumable product to said apparatus when said

consumable product is determined to be in a refilled status based on detect information detected by said consumable product status detector, said first E-mail including said terminal identification information, said information of said supplier of said consumable product, and said specification of said consumable product.

16. (original) A communications terminal apparatus as defined in Claim 15, further comprising:

an analyzer configured to analyze E-mail including request receipt acknowledgement information notified from either said manager or said service depot with respect to said first E-mail;

a display displaying said request receipt acknowledgement information, wherein said mail controlling system controls said display to display said request receipt acknowledgement information analyzed by said analyzer, and controls said display to stop displaying when said consumable product is determined to be in said refilled status based on said detect information detected by said consumable product status detector.

17. (original) A communications terminal apparatus as defined in Claim 15, wherein said terminal identification information includes at least one of an E-mail address, a serial number, facsimile TTI information, and a telephone number of said apparatus.

18. (original) A communications terminal apparatus as defined in Claim 15, wherein said identification of said supplier of said consumable product includes at least one of an E-mail address and a telephone number.

19. (original) A communications terminal apparatus as defined in Claim 15, wherein said mail controlling system notifies said manager through said facsimile communications using said telephone number registered in said manager registration system when said E-mail communications is not available to at least one of said manager and said service depot.

20. (original) A communications terminal apparatus, comprising:
a communications system configured to perform E-mail communications and facsimile communications with a manager supervising said apparatus and a service depot providing a repair service to said apparatus;

a maintenance status detector configured to detect an event indicative of a need to repair a specific maintenance component;

a manager registration system configured to register an E-mail address and a telephone number of said manager;

a service depot registration system configured to register an E-mail address and a telephone number of said service depot;

a terminal identification information registration system configured to register terminal identification information of said apparatus; and

a mail controlling system configured to send a first E-mail requesting a repair service to said manager registered in said manager registration system and to said service depot registered in said service depot registration system when said maintenance status detector detects said event and a second E-mail reporting a completion of said repair service when said service maintenance is determined as completed based on detect information detected by said

maintenance status detector, said first E-mail including said terminal identification information and information necessary for said repair service.

21. (original) A communications terminal apparatus as defined in Claim 20, further comprising:

an analyzer configured to analyze E-mail including request receipt acknowledgement information notified from either said manager or said service depot with respect to said first E-mail;

a display displaying said request receipt acknowledgement information, wherein said mail controlling system controls said display to display said request receipt acknowledgement information analyzed by said analyzer, and controls said display to stop displaying when said repair service is determined as completed based on detect information detected by said maintenance status detector.

22. (original) A communications terminal apparatus as defined in Claim 20, wherein said mail controlling system notifies at least one of said manager and said service depot through said facsimile communications using said telephone numbers respectively registered in said manager registration system and said service depot registration system when said E-mail communications is not available to at least one of said manager and said service depot.

23. (original) A communications terminal apparatus, comprising:
communications means for performing E-mail communications and facsimile communications with a manager supervising said apparatus;

consumable product status detecting means for detecting a status of said consumable product used in said apparatus and supplied by a service depot;

manager registering means for registering an E-mail address and a telephone number of said manager;

service depot registering means for registering an E-mail address and a telephone number of said service depot;

terminal identification information registering means for registering terminal identification information of said apparatus;

consumable product information registering means for registering identification of a supplier of said consumable product and specification of said consumable product; and

mail controlling means for sending a first E-mail requesting a delivery of said consumable product to said manager registered in said manager registering means when said consumable product is determined to be in a short supply status based on detect information detected by said consumable product status detecting means and a second E-mail reporting a completion of supplying said consumable product to said apparatus when said consumable product is determined to be in a refilled status based on detect information detected by said consumable product status detecting means, said first E-mail including said terminal identification information, said information of said supplier of said consumable product, and said specification of said consumable product.

24. (original) A communications terminal apparatus as defined in Claim 23, further comprising:

analyzing means for analyzing E-mail including request receipt acknowledgement

information notified from either said manager or said service depot with respect to said first E-mail;

displaying means for displaying said request receipt acknowledgement information, wherein said mail controlling means controls said displaying means to display said request receipt acknowledgement information analyzed by said analyzing means, and controls said displaying means to stop displaying when said consumable product is determined to be in said refilled status based on said detect information detected by said consumable product status detecting means.

25. (original) A communications terminal apparatus as defined in Claim 23, wherein said terminal identification information includes at least one of an E-mail address, a serial number, facsimile TTI information, and a telephone number of said apparatus.

26. (original) A communications terminal apparatus as defined in Claim 23, wherein said identification of said supplier of said consumable product includes at least one of an E-mail address and a telephone number.

27. (original) A communications terminal apparatus as defined in Claim 23, wherein said mail controlling means notifies said manager through said facsimile communications using said telephone number registered in said manager registering means when said E-mail communications is not available to at least one of said manager and said service depot.

28. (original) A communications terminal apparatus, comprising:

communications means for performing E-mail communications and facsimile communications with a manager supervising said apparatus and a service depot providing a repair service to said apparatus;

maintenance status detecting means for detecting an event indicative of a need to repair a specific maintenance component;

manager registering means for registering an E-mail address and a telephone number of said manager;

service depot registering means for registering an E-mail address and a telephone number of said service depot;

terminal identification information registering means for registering terminal identification information of said apparatus; and

mail controlling means for sending a first E-mail requesting a repair service to said manager registered in said manager registering means and to said service depot registered in said service depot registering means when said maintenance status detecting means detects said event and a second E-mail reporting a completion of said repair service when said service maintenance is determined as completed based on detect information detected by said maintenance status detecting means, said first E-mail including said terminal identification information and information necessary for said repair service.

29. (original) A communications terminal apparatus as defined in Claim 28, further comprising:

analyzing means for analyzing E-mail including request receipt acknowledgement information notified from either said manager or said service depot with respect to said first

E-mail;

displaying means for displaying said request receipt acknowledgement information, wherein said mail controlling means controls said displaying means to display said request receipt acknowledgement information analyzed by said analyzing means, and controls said displaying means to stop displaying when said repair service is determined as completed based on detect information detected by said maintenance status detecting means.

30. (original) A communications terminal apparatus as defined in Claim 28, wherein said mail controlling means notifies at least one of said manager and said service depot through said facsimile communications using said telephone numbers respectively registered in said manager registering means and said service depot registering means when said E-mail communications is not available to at least one of said manager and said service depot.

31. (original) A method of ordering a consumable product on a communications terminal apparatus, comprising the steps of:

registering electronic communications addresses of a manager supervising said apparatus and a service depot supplying said consumable product, identification of said apparatus, specification of said consumable product, and identification of said service depot; detecting an event indicating that said consumable product is nearly ended; sending a request for supplying said consumable product to said manager using said electronic communications address, said request including said identification of said apparatus, said specification of said consumable product, and said identification of said service depot;

determining that said consumable product has been supplied to said apparatus; and reporting to said manager a completion of supplying said consumable product on said apparatus.

32. (original) A method as defined in Claim 31, wherein said sending and reporting steps perform E-mail communications with said manager.

33. (original) A method as defined in Claim 31, wherein said consumable product includes toner.

34. (original) A method as defined in Claim 31, wherein said sending and reporting steps perform facsimile communications with said manager.

35. (original) A method of ordering a repair service on a communications terminal apparatus, comprising the steps of:

registering electronic communications addresses of a manager supervising said apparatus and a service depot providing said repair service, identification of said apparatus, specification of a maintenance component, and identification of said service depot; detecting an event indicating that said maintenance component is defective; sending a request for said repair service to said manager and said service depot using the respectively registered electronic communications addresses, said request including said identification of said apparatus, said specification of said maintenance component, and said identification of said service depot;

determining thereafter that said maintenance component is not defective; and reporting to said manager a completion of performing said repair service on said apparatus.

36. (original) A method as defined in Claim 35, wherein said sending and reporting steps perform E-mail communications with said manager and said service depot.

37. (original) A method as defined in Claim 35, wherein said maintenance component includes a photoconductor.

38. (original) A method as defined in Claim 35, wherein said sending and reporting steps perform facsimile communications with said manager and said service depot.

39. (original) A method of maintaining a system that comprises networked units that may require from time to time at least one of replenishing consumables and servicing of components, wherein said consumables or servicing are provided by at least one external facility and said system of networked units is supervised by a manager who need not be at the premises of said units, said method comprising:

automatically detecting a first event indicative of a requirement for replenishing consumables or servicing components at any one of said networked units, and generating a first detection signal in response to a detection of a first event at the unit;

responding to the generation of a first detection signal at the unit to automatically generate and electronically transmit a first notification to each of (a) the manager supervising

the networked units, and (b) the at least one external facility;

wherein said first notification identifies at least said unit and said event to thereby advise both the manager and the at least one facility (a) which of the networked units has a requirement. and (b) what is the requirement;

automatically detecting thereafter at said unit a second event indicating that the requirement has been satisfied, and generating a second detection signal in response to a detection of said second event; and

responding to the generation of said second detection signal to automatically generate and transmit a second notification to at least one of said manager and said at least one facility; said second notification advising that the requirement has been met.

40. (original) A method as in claim 39 including receiving at the unit, in response to said transmitting of said first notification, a first communication from at least one of said manager and said at least one external facility and displaying a selected representation of said response at the unit.

41. (original) A method as in claim 40 in which said communication is from said at least one external facility and advise when the request is expected to be met.

42. (original) A method as in claim 39 in which said transmitting of a detection signal to said manager comprises transmitting via email.

43. (original) A method as in claim 39 in which said transmitting of a detection

signal to said manager comprises transmitting via facsimile.

44. (original) A method as in claim 39 in which said first event is indicative of a requirement to replenish toner.

45. (original) A method as in claim 39 in which said first event is indicative of a requirement to service a heater in said unit.

46. (original) A method as in claim 39 in which said first event is indicative of a requirement to replace a photoconductor in said unit.